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An assessment of the composite laminate veneer videos on YouTube™

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ABSTRACT

Aims: The aim of this study is to evaluate the content of YouTube™ videos about composite laminate applications, one of the aesthetic dental applications.

Methods: A systematic search was made on YouTube™ using the keywords "bonding-aesthetic filling" and 'composite laminate. The information content of the eligible videos was assessed and categorized based on the uploaders. In addition, the interaction index and viewing rates of the videos were also examined. The data obtained was analyzed using the SPSS 25.0 (Statistical Package for Social Sciences) program.

Results: Out of 100 videos examined, 43 were related to "bonding-aesthetic filling," and 29 to "composite laminate." Key exclusion reasons included lack of explanation (31.6% for "bonding-aesthetic filling" and 62.0% for "composite laminate"). The content evaluation revealed that 62.8% of "bonding-aesthetic filling" videos and 60.7% of "composite laminate" videos were classified as poor content. Poor content videos had significantly higher viewing rates (2815.86±7413.00 views) compared to rich content videos (2770.37±5123.59 views) with a statistically significant difference ($p<0.05$). No significant differences were found in interaction index scores between poor and rich content videos ($p>0.05$). Videos with poor content had more views and comments but shorter lengths and fewer likes than rich content videos. Specialist dentists and private clinics were the primary upload sources, with 36.6% of poor content videos coming from healthcare professionals and 33.3% of rich content videos from the same group.

Conclusion: It was found that the majority of YouTube™ videos related to composite laminate were uploaded without any narrative and their informative content was insufficient. On the other hand, it was observed that as the scientific value of the videos decreased, their viewing rates increased.

Keywords: Dental veneers, composite dental resin, health education, social media, dental research

INTRODUCTION

Aesthetic standards have changed significantly in recent years, especially with social media platforms facilitating comparison in many aspects and the introduction of 'selfie culture' into our lives.[1] In this respect, the developing concept of aesthetic dentistry is the ultimate goal of most therapeutic interventions or procedures rather than a separate discipline or field of dentistry. Aesthetic dentistry is primarily characterized by the smile. Smile aesthetics is considered in a wide range of aspects related to the form, texture, colour, and alignment of the anterior teeth, as well as soft tissues, lips, and facial aesthetics.[2]

Composite laminate veneers are restorations recommended to solve problems such as deformities, aesthetic disorders, and discolorations. They are divided into direct and indirect laminate veneers according to the differences in the production process. In the direct application technique, composite resin materials are applied directly to the tooth surfaces the pre-preparation of which is completed. It has a number of advantages such as no need for tooth preparation, low cost for the patient, reversibility of the treatment, and no additional cementation stage. It is easy to polish and repair but it has disadvantages such as low resistance to abrasion, discoloration, and fracture.[3]

In today's world, the use of the Internet and social media has become a part of everyday life. It has become easier to access more information in a few seconds than one person can read. YouTube™ is the main free video platform, and is considered to be the largest online multimedia library. Founded in 2005, YouTube™ has local versions in eighty languages in more than one hundred countries around the world, with more than five hundred hours of content uploaded every minute.[4]

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In recent years, the media has been widely used to share health-related information. YouTube™, the globally popular video-sharing website, receives more than 1 billion hours of views every day, including thirty million medical videos.[5] Given this massive reach, patients increasingly turn to YouTube™ for health information, raising concerns about the accuracy and reliability of the content due to the platform's minimal editorial oversight.[6-8]

80% of Internet users search online for information regarding any health topic, such as a specific disease or treatment, and these searchers account for 59% of all adults.[9] However, there are concerns regarding the accuracy and quality of health-related information in YouTube™ videos due to the minimal editing of a lot of information.[5]

Despite the increasing use of digital platforms for health information, there is a notable gap in the literature concerning the quality and accuracy of YouTube™ videos specifically related to composite laminate veneers. While prior research has explored YouTube™ content in areas like endodontics,[8,10,11] prosthodontics,[12-14] and pediatric dentistry,[15,16] the body of work addressing restorative dentistry, particularly composite laminate veneers, remains sparse. Given the vast number of people turning to YouTube™ for health information, it is crucial to assess the reliability of this content. This study aims to address this gap by evaluating the quality, accuracy, and informational value of YouTube™ videos on composite laminate veneers available in Turkiye, thus highlighting the need for improved educational resources in this domain.

METHODS

Data Collection

Before identifying the videos under the detected search words, a new YouTube™ (http://www.youtube.com) account was created so that old searches would not affect the results and ranking of the videos, and only videos on composite laminates uploaded up to July 2023, were scanned. Since publicly available data were used in this study, ethics committee approval was not needed.[13] All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

The Google Trends application was used as the first stage of the study. In Turkiye for the last twelve months, in all categories, YouTube™ search filters were used to search for the most frequently used words or phrases by patients. On 6 June 2023, it was determined that the most used terms in YouTube™ searches in the last twelve months in Turkiye were "bonding-aesthetic filling' and 'composite laminate' in the Turkish language (Figure 1, 2).

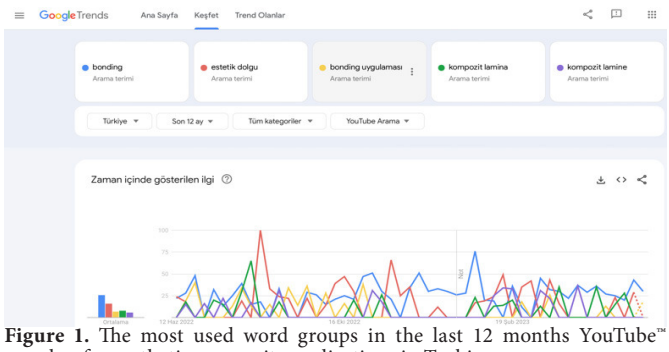

Figure 1. The most used word groups in the last 12 months YouTube™ searches for aesthetic composite applications in Turkiye

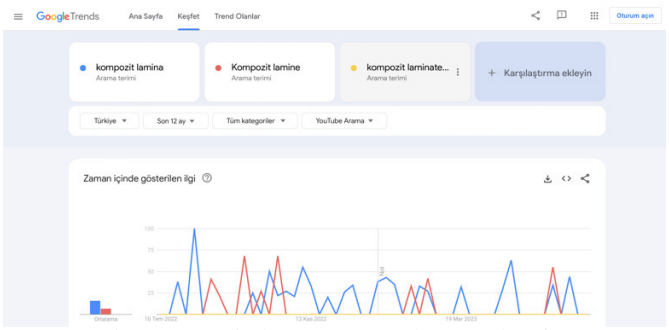

Figure 2. The most used phrases in YouTube™ searches for composite laminate applications in Turkiye in the last 12 months

Similar studies have found that around 95% of users watch the first 60-200 videos listed following the search results.[17] For this reason, the first 100 videos for the topics in the study were viewed and universal resource locators (URLs) were recorded, as search results may change on different days. The inclusion criteria were Turkish, verbal and/or written narration, and acceptable audio and visual quality (480p).[18]

Videos that are not relevant to the topic, repetitive videos, videos lasting longer than 15 minutes, YouTube™ short videos, videos that were are not in Turkish, videos with closed comments, and advertisements were excluded.[19]

Videos that were not evaluated according to the exclusion criteria were excluded from the study and 43 videos for 'bonding-aesthetic filling' and 29 videos for 'composite laminate' were evaluated in our study.

Analysis of Information Content of Videos

The content of the videos was evaluated synchronously by two restorative dental specialists. All the videos included in the study were evaluated in detail in terms of video uploaders, video information quality, and general video information. The videos were classified according to their uploaders as specialist dentists and dentists, private hospitals and private clinics, TV channels, and other users.

The content quality of the videos was analysed by considering 8 different sub-parameters. These were definition, indication, contraindication, method, advantage, disadvantage, postoperative considerations, and cost information. The YouTube™ videos were evaluated in subcategories determined by two researchers. A score of 0 or 1 was given according to whether the relevant topic was mentioned or not. Videos with an average score of 4 and above by two observers were classified as rich content videos, while videos with a score below 4 were classified as poor content videos.[20]

View Rate and Audience Engagement Analysis

For each of the videos, the following parameters were recorded and the engagement index (%) and view rate (%) were calculated.[21]

1) Title and URL
2) Video length
3) Date of loading
4) Time elapsed from the date of loading until today (in days)
5) Who performed the loading (clinic, dentist, commercial)
6) Number of views
7) Number of likes and dislikes
8) Number of comments

Engagement index (%)=[(number of likes-number of dislikes)/ number of views)]x100

View rate (%)=[(number of views)/time since upload)]x100

Statistical Analysis

The data obtained in the study were analyzed using an SPSS (Statistical Package for Social Sciences) for the Windows 25.0 program. Descriptive statistical methods (number, percentage, min-max values, mean, and standard deviation) were used to evaluate the data. The conformity of the used data to normal distribution was tested with the Kolmogorov-smirnov test. When the results were analyzed, it was determined that the variables did not show normal distribution (p>0.05). The Mann Whitney U test was used for the difference between two independent groups in the comparison of quantitative data with data that did not have a normal distribution.

RESULTS

When the exclusion criteria of 57 videos out of a total of 100 videos evaluated for 'bonding-aesthetic filling' were examined, it was determined that 28.1% were irrelevant, 31.6% verbal and/or written narration, 10.5% had insufficient resolution, 3.5% were repetitive videos, 3.5% were advertisements, 3.5% were too long, 1.8% were not in Turkish, and 17.5% were closed to comments.

When the exclusion criteria of 71 videos out of 100 videos evaluated for 'composite laminate' were examined, it was seen that 14.1% were irrelevant, 62% verbal and/or written narration, 9.9% were repetitive videos, 2.8% had insufficient resolution, 2.8% were advertisements, 7% were too long, and 1.4% were closed to comments (Table 1).

Table 1. Exclusion criteria

	Bonding-aesthetic filling		Composite laminate		Total	
Exclusion criteria	**n**	**%**	**n**	**%**	**n**	**%**
Irrelevant	16	28.10	10	14.10	26	20.30
No narration	18	31.60	44	62	62	48.40
Resolution is not enough	6	10.50	2	2.80	8	6.30
Duplicate	2	3.50	7	9.90	9	7
Advertisement	2	3.50	2	2.80	4	3.10
Long duration	2	3.50	5	7	7	5.50
Not Turkish	1	1.80	0	0	1	0.80
Comments are closed	10	17.50	1	1.40	11	8.60
Total	57	100	71	100	128	100

The data on the included videos are summarized in Table 2.

When the upload sources of the videos were analyzed, 23.3% of the 'bonding-aesthetic filling' videos were uploaded by specialist dentists and dentists, 41.9% by private hospitals and private clinics, 11.6% by TV channels, and 23.3% by other users; For 'composite laminate' videos, 50% were Specialists and Dentists, 28.6% were private hospitals and private clinics, 7.1% were TV channels, and 3.6% were other users.

When the video content evaluations are analyzed, it can be seen that 86% of the 'bonding-aesthetic filling' videos include definition, 48.8% indication, 2.3% contraindication, 34.9% method, 60.5% advantage, 41.9% disadvantage, 30.2% postoperative considerations, and18.6% cost.

Table 2. Video characteristics of the included YouTube™ videos

Variables	Bonding-aesthetic filling	Composite laminate	p
	X±SD	X±SD	
Views	30902.9±106907.54	28871.11±73168.41	0.627
Video length (sec)	180.95±188.03	231.3±225.08	0.562
Time since upload (years)	3.51±2.64	2.19±1.68	0.049*
Number of likes	89.67±196.39	146.78±268.12	0.196
Number of dislikes	0	0	-
Number of comments	32.88±104.19	67.37±145.13	0.008*

*p<0.05, Mann Whitney U test, SD: Standard deviation

It can be seen that 71.4% of the 'composite laminate' videos include definition, 46.4% indication, 14.3% contraindication, 46.4% method, 42.9% advantage, 32.1% disadvantage, 28.6% postoperative considerations, and 25% cost (Figure 3).

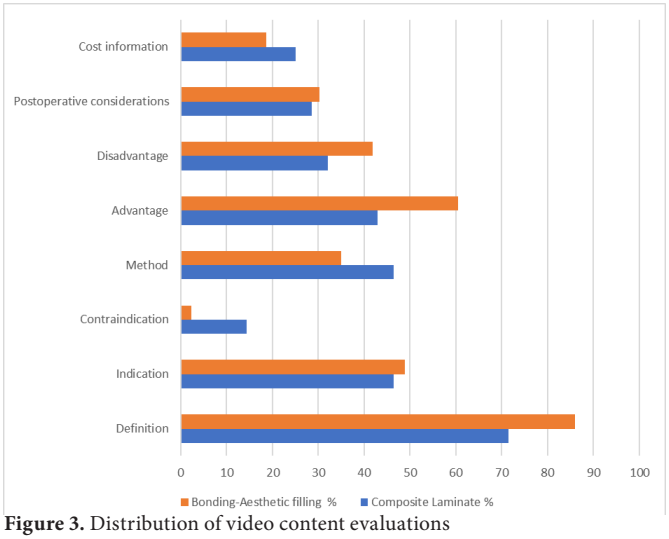

Figure 3. Distribution of video content evaluations

When the video content evaluations are examined, it can be seen that 62.8% of the 'bonding - aesthetic filling' are poor content videos 37.2% are rich content videos; 60.7% of the 'composite laminate' videos are poor content videos and 39.3% are rich content videos (Table 3).

Table 3. Distribution of video content reviews

	Bonding-aesthetic filling		Composite laminate		Total	
	n	**%**	**n**	**%**	**n**	**%**
Video with poor content	27	62.80	17	60.70	44	62
Video with rich content	16	37.20	11	39.3	27	38
Total	43	100.00	28	100.00	71	100.00

There is a statistically significant difference (p<0.05) between the viewing rates according to the video content status (poor content, rich content). It is seen that the viewing rates of poor content videos (2815.86±7413.00) are statistically significantly higher than rich content videos (2770.37±5123.59). There is no statistically significant difference between the Interaction Index according to the video content status (p>0.05).

It can be seen that there is no statistically significant difference between the viewing rate and interaction index according to

video types (bonding-aesthetic filling, composite laminate) (p>0.05).

There is a statistically significant difference between the number of views, video length, number of likes, and number of comments according to video content (p<0.05). It can be seen that the number of views and the number of comments on videos with poor content are higher than for videos with rich content. It can also be seen that the video length and number of likes of rich content videos are higher than for poor content videos (Table 4).

Table 4. Comparison of video features according to video content status

Variables	Video with poor content	Video with rich content	p
	X±SD	X±SD	
Views	36298.02±116541.4	17789.96±27643.78	0.027*
Video length (sec)	140.07±192.06	286.04±190.1	0.000*
Time since upload (years)	3.21±2.71	2.43±1.75	0.385
Number of likes	88.67±225.41	141.81±222.24	0.016*
Number of comments	48.53±130.78	38.85±102.52	0.040*

*p<0.05, Mann Whitney U test, SD: Standard deviation

When the relationship between the video content status and upload sources is examined, it can be seen that 36.6% of the videos with poor content were uploaded by healthcare professionals, 46.3% by private hospitals and private clinics, 2.4% by TV channels, and 14.6% by other users; 33.3% of the videos with rich content were uploaded by healthcare professionals, 25.9% by private hospitals and private clinics, 22.2% by TV channels, and 18.5% by other users (Table 5).

Table 5. The relationship between video content status and upload sources

Upload sources		Video content status	
		Video with poor content	Video with rich content
Specialist dentist and dentist	n	15	9
	%	36.6	33.3
Private hospitals and private clinics	n	19	7
	%	46.3	25.9
TV channel	n	1	6
	%	2.4	22.2
Other users	n	6	5
	%	14.6	18.5

DISCUSSION

With the advances in adhesive techniques, the use of conservative restoration options to improve the aesthetic appearance of teeth has become widespread. Composite laminate veneers are preferred in cases such as adjustment of tooth forms, masking tooth discoloration, closing interdental gaps, and restoration of anterior tooth fractures because they provide a conservative treatment opportunity, good marginal adaptation, and ease of polishing/repair.[22,23] Although detailed information is provided by the doctors before any treatment, individuals need additional information with the expansion of the social media and internet library and this leads to the use of the Internet. Today, there is a demand for health-related information on YouTube™, the video-sharing website.[8,16]

In the literature, there are studies evaluating YouTube™ videos in the field of dentistry.[24,25] However, there is no study on composite laminates, which are one of the popular aesthetic treatments of restorative dentistry. For this reason, the study investigates the quality of YouTube™ videos on composite laminate veneers and whether they can be a reliable source for internet users. Of the first 100 videos examined in the study on the topics of 'bonding-aesthetic filling' and 'composite laminate', 43 videos for ''bonding-aesthetic filling' and 29 videos for 'composite laminate' were included and analyzed. A lack of verbal and/or written narration was the most important exclusion criterion for both 'bonding-aesthetic filling' (n=18, 31.6%) and 'composite laminate' (n=44, 62.0%).

When we examined the characteristics of the YouTube™ videos included in the study, no statistically significant difference was observed in the number of views, video length, number of likes, and number of dislikes regarding the topics of 'bonding-aesthetic filling' and 'composite laminate' (p<0.05). When the time elapsed since uploading was analyzed, it was determined that 'bonding-aesthetic filling' (3.51±2.64) videos were uploaded a statistically significant period earlier than 'composite laminate' (2.19±1.68) videos. Due to the statistically significant lower number of comments on 'bonding-aesthetic filling' (32.88±104.19) videos compared to 'composite laminate' (67.37±145.13) videos, there may be an increase in the popularity of the 'composite laminate' topic today. However, similar to our study, the view rate and engagement index are frequently used to determine the popularity of videos.[25-27] In the study, no statistically significant difference was observed between 'bonding-aesthetic filling' and 'composite laminate' in terms of the visualization rate (p=0.091>0.05) and the interaction index (p=0.410>0.05).

The content analysis of the videos that met the inclusion criteria was evaluated on 8 sub-parameters similar to a study by Yağcı.[28] When the evaluation results are examined, it is noticeable that there is a serious lack of information regarding composite laminate applications published on YouTube™. In the videos on 'bonding-aesthetic filling' and 'composite laminate', the definition (86-71.4%), advantages (60.5-42.9%), and indications (48.8-46.4%) were relatively average, while the contraindications (2.3-14.3%), cost (18.6-25.0%), considerations after the procedure (30.2%, 28.6%), method (34.9-46.4%) and disadvantages (41.9-32.1%) were relatively insufficiently mentioned. This is in line with the results found in similar studies.[20,24]

The content quality of the videos included in the study was evaluated by two Restorative Dentistry specialists. Videos with less than 4 points out of 8 predetermined sub-parameters were classified as videos with poor content. 62.8% of the 'bonding-aesthetic filling' videos and 60.7% of the 'composite laminate' videos were categorized as poor content videos. Similar to our study, many studies evaluating YouTube content have found that the video content quality is poor. Abukaraky et al. [29] examined dental implants on YouTube™ and found that the average usefulness score was poor in 117 videos.

Similar results were found in studies conducted in different fields such as Topsakal et al.'s[20] evaluation of orthodontic videos, Şahin[24] research on porcelain laminate veneers, and Wong et al.'s[30] evaluation of YouTube™ videos on dental fear,

anxiety and phobia. On the other hand, it was observed that there was a statistically significant difference between the view rates of the videos compared to the content status (p=0.021<0.05). When examined in detail, it can be seen that the number of views and comments on videos with poor content is statistically significantly higher than for videos with rich content (p<0.05). Similarly, it can be seen that there is a statistically significant difference between the viewing rates compared to the video content status (poor content, rich content) in favour of poor content (p<0.05). This shows that as the scientific value of the videos decreases, the viewing rates increase. It was observed that YouTube™ videos with rich content had a statistically significant higher video length (p=0.000<0.05). This can be explained by the fact that videos with rich content contain more topics.

When the upload sources of the videos were examined, it was seen that the majority (65.2-78.6%) of the 'bonding- aesthetic filling' and 'composite laminate' videos were uploaded by specialist dentists and dentists-private hospitals and private clinics, except for the 'other users' content. When the distribution of upload sources according to video content status is examined, it can be seen that the majority of videos with poor content (82.9%) are uploaded by this group. On the other hand, 59.2% of the videos uploaded by specialist dentists/dentists - private hospitals / private clinics have rich content.

YouTube™'s algorithm tends to promote videos with higher engagement metrics (e.g., views, likes, and comments). Videos with sensational or provocative content often achieve higher engagement, leading to their promotion by the algorithm. Videos with poor content may omit critical details or present information in a misleading way. Viewers might click on these videos seeking straightforward answers, which they may not get from more nuanced or longer videos with rich content. Shorter, less detailed videos may be easier to watch and share quickly. This convenience can contribute to higher view counts despite the lower quality of the information presented. It has been reported that such reasons may be among the reasons why low quality videos have higher viewing rates.[31,32]

Our recommendations for improving the quality of YouTube™ health information videos include; YouTube™ can improve its algorithms to prioritize content based on accuracy and depth rather than engagement metrics alone. Provide training for content creators on how to produce high-quality educational content. This training could include information on evidence-based practices and appropriately citing sources. Videos that include interviews or contributions from recognized experts in the field can increase the credibility of content. Content creators can collaborate with healthcare professionals to ensure accuracy and relevance. Provide training for viewers on how to critically evaluate online health information. Providing resources on how to evaluate the credibility of sources and how to recognize misleading information can help viewers make informed decisions.

Limitations

The limitations of our study are that our search criteria were produced in Turkish. We believe that searches in different languages may improve the results of the study. In addition, since videos are constantly uploaded and deleted on the YouTube™ platform, the reproducibility of the study cannot be confirmed, and the content will unavoidably change over time as new videos are added and others are removed. The limitations of this study also include the fact that YouTube™ content varies over time and that different results are obtained when different keywords are used.

CONCLUSION

With its increasing popularity in recent years, YouTube™ has become a source of information for healthcare professionals, a way for physicians to reach patients, a source of research on the treatments to be applied by patients, and a source of sharing patient experiences. It can be seen that the concern mentioned in the evaluation studies on videos uploaded on YouTube™ to date is meaningful. It is possible to say that the majority of the YouTube™ videos on the composite laminate applications that we evaluated in this study are presented without any narrative and that their content is weak.

ETHICAL DECLARATIONS

Ethics Committee Approval

Since publicly available data were used in this study, ethics committee approval was not needed.

Informed Consent

Since publicly available data were used in this study, informed consent was not needed.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

The authors declared that this study has received no financial support.

Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

REFERENCES

1. AlGhamdi KM, Moussa NA. Internet use by the public to search for health-related information. *Int J Med Inform.* 2012;81(6):363-373.
2. Alikhasi M, Yousefi P, Afrashtehfar KI. Smile design: mechanical considerations. *Dent Clin North Am.* 2022;66(3):477-487.
3. Korkut B, Yanıkoğlu F, Günday M. Direct composite laminate veneers: three case reports. *J Dent Res Dent Clin Dent Prospects.* 2013;7(2):p.105.
4. Available from: https://blog.youtube/press.
5. Onder ME, Zengin O. Quality of healthcare information on YouTube: psoriatic arthritis. *Z Rheumatol.* 2023;82(Suppl 1):30-37.
6. Amante DJ, Hogan TP, Pagoto SL, et al. Access to care and use of the internet to search for health information: results from the US National Health Interview Survey. *J Med Internet Res.* 2015;17(4):e106.
7. Escoffery C, Miner KR, Adame DD, et al. Internet use for health information among college students. *J Am Coll Health.* 2005;53(4):183-188.
8. McLean S, Cook N, Rovira-Wilde A, et al. Evaluating YouTube as a patient information source for the risks of root canal treatment. *J Endod.* 2023;49(2):155-161.
9. Fox S. The social life of health information. *California Healthcare Foundation.* 2011.

10. Nason K, Donnelly A, Duncan HF. YouTube as a patient-information source for root canal treatment. *Int Endod J.* 2016;49(12):1194-1200.
11. Özbay Y, Çırakoğlu NY. YouTube as an information source for instrument separation in root canal treatment. *Restor Dent Endod.* 2021;46(1):e8.
12. Kurian N, Varghese KG, Daniel S, et al. Are YouTube videos on complete arch fixed implant-supported prostheses useful for patient education?. *J Prosthet Dent.* 2022;131(4):684-688.
13. Yagci F. Evaluation of YouTube as an information source for denture care. *J Prosthet Dent.* 2023;129(4):623-629.
14. Degirmenci K, Saridag S. Can YouTube videos be helpful in promoting self-performed denture hygiene?. *Internet J Allied Health Sci Pract.* 2022;31:20-22.
15. Varghese NS, Cherian JM, Thomas AM. Credibility of YouTube™ videos on root canal treatment in children. *J Indian Soc Pedod Prev Dent.* 2022; 40(2):154-158.
16. Aksoy M, Topsakal KG. YouTube™ for information on paediatric oral health instructions. *Int J Dent Hyg.* 2022;20(3):496-503.
17. Hegarty E, Campbell C, Grammatopoulos E, DiBiase AT, Sherriff M, Cobourne MT. YouTube™ as an information resource for orthognathic surgery. *J Orthod.* 2017;44(2):90-96. doi:10.1080/14653125.2017.1319010
18. Habib SR, Khan AS, Ali M, et al. An evaluation of the usefulness of YouTube® videos on crown preparation. *Biomed Res Int.* 2022;2022: 1897705. doi:10.1155/2022/1897705
19. Kodonas, K, Fardi A, YouTube as a source of information about pulpotomy and pulp capping: a cross sectional reliability analysis. *Restor Dent Endod.* 2021;46(3):p.e40.
20. Topsakal KG, Aksoy M, Akbulut AS. Evaluation of the contents of YouTube videos on orthodontic treatments applied to children. *NEU Dent J.* 2021;3(3):108-114.
21. Lena Y, Dindaroğlu F. Lingual orthodontic treatment: a YouTube™ video analysis. *Angle Orthod.* 2018;88(2):208-214.
22. Gupta J, Agarwal A, Lahori M. A comparative evaluation of shear bond strength of direct composite laminates using different surface treatments: an in vitro study. *J Interdiscip Dentistry.* 2022;12(3):83-89.
23. Celik N, Yapar MI, Taşpınar N, Seven N. The effect of polymerization and preparation techniques on the microleakage of composite laminate veneers. *Contemp Clin Dent.* 2017;8(3):400-404.
24. Şahin SC. Evaluation of YouTube videos about porcelain laminate veneers. *Acta Odontol Turc.* 2021;38(1):19-27.
25. Jung MJ, Seo MS. Assessment of reliability and information quality of YouTube videos about root canal treatment after 2016. *BMC Oral Health.* 2022;22(1):494.
26. Yavuz MC, Buyuk SK, Genc E. Does YouTube™ offer high quali0ty information? Evaluation of accelerated orthodontics videos. *Ir J Med Sci.* 2020;189(2):505-509.
27. Erturk-Avunduk AT, Delikan E. Evaluation of the quality of YouTube™ videos about pit and fissure sealant applications. *Int J Dent Hyg.* 2023; 21(3):590-598.
28. Yağcı F. Evaluation of YouTube as an information source for fixed prosthetic restorations. *JHS.* 2021;30:191-199.
29. Abukaraky A, Hamdan AA, Ameera MN, et al. Quality of YouTube TM videos on dental implants. *Med Oral Patol Oral Cir Bucal.* 2018;23(4): e463-e468.
30. Wong NSM, Yeung AWK, McGrath CP, et al. Qualitative evaluation of YouTube videos on dental fear, anxiety and phobia. *Int J Environ Res Public Health.* 2022;20(1):750.
31. Chen J, Wang Y. Social media use for health purposes: systematic review. *J Med Internet Res.* 2021;23(5):e17917.
32. Kite J, Chan L, MacKay K, et al. A model of social media effects in public health communication campaigns: systematic review. *J Med Internet Res.* 2023;25:e46345.